Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(Currently Amended)** A method of handling ATM traffic comprising ~~streams of~~ packets of AAL5 type composed of ATM cells, at a network node at VP-layer, the method comprising:

- providing a database,

- monitoring each of said cells incoming the node ~~to obtain information at least on its~~ and determining at least VC-layer and VP-layer parameters of a cell being monitored,

- processing information on said determined parameters,

- registering the processed information concerning each of said cells in ~~a~~ ~~statistical~~ the database to ~~obtain~~ form statistical data with respect to at least combinations of the ~~at least~~ VC-layer and VP-layer parameters of the packets being handled at the node, so as to make the network node, handling the ATM traffic at VP-layer, aware about nature and behavior of various AAL5 streams in a particular VP connection, and

- analyzing information registered in the database and making a decision on possible discard of the cell being monitored by taking into account frequency of appearance of a combination of its VC-layer and VP-layer parameters in the database.

2. **(Currently Amended)** The method according to Claim 1, wherein each of said packets belongs to a particular VCC (Virtual Channel Connection) and a particular VPC (Virtual Path Connection), and wherein each said packet comprises a ~~plurality~~ number of ATM

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cells, ~~all~~ and for each said packet, each of the cells ~~of the same packet carrying~~ the ~~have~~ a same

value of VC-index (VCI) and ~~the~~ a same value of VP-index (VPI), the method comprises:

> ~~providing the statistical database,~~

> ~~monitoring each of said cells incoming the node to obtain information at least on~~

~~its~~ determining said VC-layer and VP-layer parameters by determining VPI and VCI values of

the cell;

> ~~processing said information by processing the determined at least VCI and VPI~~

~~values of each of the monitored cells,~~ and

> registering the processed information ~~by inserting the processing result~~ per each

of the monitored cells in the ~~statistical~~ database, to allow judging about VCCs in a particular VP

connection and thereby enabling awareness of the network node about VCCs at the VP layer and

frequency of their appearance in the ATM traffic being handled.

> 3. (**Currently Amended**)   The method of handling ATM traffic at a network

node, according to Claim 1 ~~or 2~~, wherein the node has ~~one or more~~ multiple ATM Interfaces, the

method comprises providing one or more said ~~statistical~~ databases for respectively serving ~~said~~

~~one or more~~ a number of the multiple ATM Interfaces.

> 4. (**cancelled**)

> 5. (**Currently Amended**)   The method according to claim 3 [4], comprising an

additional step of indicating a particular ATM Interface, for each ATM cell received there-

through, by an additional parameter being a unique ATM Interface index (IfIndex), the method

also comprising monitoring each of ~~the~~ incoming cells from the point of that additional

parameter, processing the additional parameter together with said ~~other~~ parameters and

registering <u>result of</u> the processing ~~result in the~~ <u>a</u> common ~~statistical~~ database <u>for serving at least</u>

<u>a number of the multiple ATM Interfaces</u>.

      6. **(Currently Amended)**   The method according to ~~any one of the preceding~~

~~claims~~ <u>Claim 1</u>, further comprising monitoring each of the incoming ATM cells ~~from the point~~

~~in respect~~ of "end of packet" indication and, based on the presence or absence of said indication,

complementing the statistical database with a status of the VCC under monitoring to which the

cell being registered belongs.

      7. **(Currently Amended)**   The method according to ~~any one of the preceding~~

~~claims~~ <u>Claim 1</u>, wherein the step of providing the statistical database is performed by building a

table arranged for N entries assigned to N different VCCs, wherein each entry registers a number

of fields assigned for at least the following purposes: indicating a VPI value, indicating a VCI

value, a counter of "own cells", a counter of "other cells", AAL5 packet status.

      8. **(Cancelled)**

      9. **(Currently Amended)**   The method according to ~~any one of Claims 1 to 7~~

<u>Claim 1,</u> wherein the step of processing the VCI and VPI parameters is performed by applying

an arbitrary function $f(VPI, VCI) = n$ $(n=1..N)$ to values of VPI and VCI of each of the incoming

ATM cells, wherein the value n is a natural number between 1 and N and represents the entry

number in the statistical database to which the incoming ATM cell is mapped.

10. **(Currently Amended)** The method according to Claim 8 7, comprising registering, per each entry, an additional field for indicating an index of the ATM Interface (IfIndex), wherein the step of processing the IfIndex, VCI and VPI parameters is performed by applying an arbitrary function f(IfIndex, VPI, VCI) =n (n=1..N) to values of IfIndex, VPI and VCI of each of the incoming ATM cells, wherein the value n is a natural number between 1 and N and represents the entry number in the statistical database to which the incoming ATM cell is mapped.

11. **(cancelled)**

12. **(Original)** The method according to Claim 7, wherein the fields "own cells" and "different cells" serve for distinguishing different VCCs which can be mapped to the same entry.

13. **(Original)** The method according to Claim 12, comprising replacing a particular entry by reassigning it to another VCC if in said entry a reading of the "own cells" counter is significantly smaller than a reading of the "other cells" counter.

14. **(Original)** The method according to Claim 6, further comprising indicating the status in the statistical database as follows:

Begin Of Packet – where the monitored VCC starts transferring a new packet, in case the previous ATM cell belonging to the VCC under monitoring carried an "End Of Packet" indication;

In Packet – where the monitored VCC is in the middle of the AAL5 packet transmission.

15. **(Original)**   The method according to Claim 14, further comprising indicating additional status options for informing whether the current VCC is already under a packet discard process; said status options being either PD (partial discard) or FD (full discard).

16. **(Currently Amended)**   A method of AAL5 packets discard at a VP-layer, with respect to said packets handled at a network node according to the method according to Claim 1, ~~any one of Claims 1 to 15, the packet discard mechanism~~ <u>wherein the step of making said decision</u> comprises:

- detecting a new congestion event in the network while monitoring a cell belonging to a particular VCC,

- <u>based on the</u> analyzing <u>of</u> information in the database, ~~based on the analysis~~ deciding whether said particular VCC is suitable for discarding,

- if yes, discarding cells of the VCC according to a selected discard policy,

- if not, ~~performing the mechanism~~ <u>making said decision</u> with respect to a new incoming cell.

17. **(Currently Amended)**   The method according to Claim 16, wherein the step of analyzing information in the ~~statistic~~ database ~~generally~~ comprises checking whether the particular VCC is registered as one of "N" entries of the ~~table and~~ database:

if the VCC is not registered in the database, making a decision not to discard the cell<u>, and</u>

<u>if the VCC is registered in the database, making a decision to discard the cell</u>.

18. **(cancelled)**

19. **(Currently Amended)** The method according to Claim 18, further comprising <u>indicating, in the database, status of the VCC being monitored so as to distinguish a "begin packet" status and an "in packet" status,</u>

<u>the method also comprising</u> checking <u>the</u> status of the packet and depending on the status "in packet " or "begin of packet", applying the following discard decisions:

- when the status is "begin of packet", performing a Full Discard policy;

- when the status is "in packet", performing a Partial Discard policy.

20. **(Original)** The method according to Claim 16, wherein the analysis step further includes a check whether cells of the particular VCC are already under discard, and if yes, repeating the method with respect to the VCC of the next incoming cell in case the congestion event persists.

21. **(Original)** The method according to Claim 16, further comprising a step of forecasting an expected congestion event, and if said expected event is forecast, a discard decision is made for the incoming VCC which is considered, and performed on the basis of status "begin of packet" and by applying a Full Discard policy.

22. **(Currently Amended)** A software product comprising software implementable instructions and/or data for carrying out the methods according to <u>Claim 1</u> ~~any one of the preceding claims~~.

23. **(Original)**   A carrier medium comprising the software product according to Claim 22.

24. **(Currently Amended)**   A network node adapted to and capable of performing the method according to Claim 1.

25. **(original)** The network node according to Claim 24, being a Digital Subscriber Line Access Multiplexer (DSLAM).